STROKE CENTRE APPLICATION FORM

The following application form will have to be filled in during the application process. Please read the application form carefully in order to prepare for your application.

Please find below the definitions and explanations of the European Certification Application Form. If you have further questions, do not hesitate to contact us anytime (eso-certification@eso-stroke.org). You will also find an overview of all necessary documents (in English), which have to be uploaded during the application process.

Definition:

Stroke Unit:
A dedicated geographically clearly defined area or ward in a hospital, where stroke patients are admitted and cared for by a multi-professional team (medical, nursing, and therapy staff) who have specialist knowledge of cerebral function, training and skills in stroke care with well-defined individual tasks, regular interaction with other disciplines, and stroke leadership. This team co-ordinates care through regular (weekly), multidisciplinary meetings.

Stroke Centre:
A hospital infrastructure and related processes of care that provide the full pathway of stroke unit care. A stroke centre is the co-ordinating body of the entire chain of care. This covers pre-hospital care, ongoing rehabilitation and secondary prevention, and access to neurosurgical and vascular intervention. A stroke unit is the most important component of a stroke centre. An ESO Stroke Centre provides stroke unit services for the population of its own catchment area and serves as a referral centre for peripheral hospitals with ESO stroke units in case their patients need services which are not available locally.

Explanation of Evaluation:
Questions highlighted in yellow are must criteria and they must be fulfilled. If you cannot fulfil any of them, we highly recommend you not to start the online certification process before you have all required documents ready and services available.

The quality criteria's are evaluated by points.

There are two different principles:

1. The must criteria (highlighted in yellow) have to be either fulfilled (3 points) or are not fulfilled (0 points); some further criteria are fulfilled (3 points) or not (0 points). This is shown as 0/3 in the column "Points".
2. Additional criteria will be graded as follows:

   0 Points = not existing/fulfilled
   1 Point = minimally existing
   2 Points = existing/fulfilled to at least 50%
   3 Points = completely fulfilled

   This is shown as 0/1/2/3 in the column "Points" below.

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Table 2 - Stroke Centre application form

A) Lead

Warrants independent decisions for rational stroke care

Number	Question	Points	Documents/Texts
A1	Medical care is led and provided by a stroke neurologist or by a neurology experienced senior stroke physician	0/3	Organigrams 1st Scheme of the organisation of the hospital showing how the stroke centre is imbedded 2nd scheme showing how the stroke centre works ->examples
A2	The leading stroke neurologist or stroke physician is actively involved in stroke centre leadership, service coordination, development, research and audit	0/3	CV of the leading stroke neurologist or the senior stroke physician and the deputy
A3	Disposition of SU-beds is held by the attending junior stroke physician or the stroke neurologist/ senior stroke physician	0/3	SOP, describing process how SU-beds are allocated and who manages it
A4	An experienced stroke neurologist/ neurology experienced stroke physician leads an outpatient clinic dedicated to stroke patients. In case of a missing outpatient clinic, specify the follow-up of stroke care	0/1/2/3	CV of the medical leader of the outpatient clinic Name and written agreement(s) with the leaders of follow-up of stroke care.

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B) Personnel

Fulfils the requirement for: Coordinated multiprofessional stroke unit care (care in a discrete area in the hospital, staffed by a specialist stroke multiprofessional team with regular multiprofessional meetings for planning care)

Number	Question	Points	Documents/Texts
B1	A stroke physician or stroke neurologist is present at the institution during official working hours and is available around the clock 24/7	0/3	Official and authorized Work plan and CV´s of all stroke staff including FTE
B2	A neurosonologist is available (within clinically appropriate time period)	0/1/2/3	Description of what is provided
B3	A neuroradiologist and/or neurointerventionalist with expertise in stroke diagnostics and cerebrovascular interventions is on call 24/7 (immediate or timely access)	0/3	CV of neuroradiologists /neurointerventionalists and staff plan including radiology technicians
B4	A neurosurgeon is on call 24/7 (immediate or timely access)	0/3	Staff plan and signed agreement with leading neurosurgeon
B5	A vessel-surgeon is on call 24/7 (immediate or timely access)	0/3	Staff plan and signed agreement with leading vessel-surgeon

B6	A cardiologist and internist expertise are available 24/7	0/3	Staff plan with names of available specialists of cardiology and colleagues with specifications of internal medicine expertise that are available 24/7
B7	A specialist for neurorehabilitation is integrated in the team. Integration means participation in interdisciplinary meetings and present on the ward at least once a week for half a day.	0/1/2/3	Organigram, CV of specialist/physician providing neurorehabilitation, SOP
B8	Patients are cared by dedicated stroke trained nursing staff	0/3	Training schedules for nurses, CV of the head-nurse of the SC, number of nursing personnel given in FTE, and calculated number of nurse per bed/24hrs
B9	Stroke trained physiotherapists (PTs) are part of the stroke team	0/3	1. Description of stroke training of PTs, 2. Names of PTs, FTE for SC-patients 3. Number of PTs per bed
B10	Stroke trained occupational therapists (OTs) are part of the stroke team	0/1/2/3	1. Description of stroke training of OTs, 2. Names of OTs, FTE for SC-patients 3. Number of OTs per bed
B11	Stroke trained speech, language and swallowing therapists (SLTs) are part of the stroke team	0/3	1. Description of stroke training of SLTs, 2. Names of SLTs, FTE for SC-patients 3. Number of SLTs per bed
B12	Support by social worker (SW) is available at the institution	0/1/2/3	1. Description of how SWs are integrated, 2. Names of SWs, FTE for SC-patients 3. Number of SWs per bed, when outside own hospital, signed agreement.
B13	Patients get access to neuropsychologists	0/3	1. Description of how neuropsychologists are integrated, 2. Names of neuropsychologists, FTE for SC-patients 3. Number of neuropsychological assessments for stroke patients the previous year. When outside own hospital, signed agreement.

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Training schedules, description of stroke training and integrations may be given in the local language.

FTE: full time equivalents, including all staff on rotation

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C) General Infrastructure

Dedicated stroke ward care means that acute stroke patients (including stroke-mimics) are treated in a geographically defines area of the hospital admitting exclusively stroke and TIA patients and not patients with other disorders.

Number	Question	Points	Documents/Texts
C1	Stroke patient care in a discrete area in the hospital, staffed by a specialist stroke multi-professional team with regular multi-professional meetings for planning care. For this purpose the Stroke Unit dispose of an geographically defined stroke ward admitting stroke and TIA patients	0/3	Situation plan of Stroke Centre with details of the location of the monitored and non-monitored (G3) beds (see G2 und G3), organigram, plan of multi-professional meetings
C2	The stroke unit of the stroke centre is located in an institution that runs an emergency department (according to international standards, such as trauma level I or higher)	0/3	Description of emergency department area or online link (local language sufficient)
C3	The stroke centre is located in an institution that runs an intensive care unit according to international standards with appropriate personnel	0/3	Provide information or online link
C4	The stroke centre runs an outpatient clinic for stroke and TIA patients. In case of a missing outpatient clinic at your hospital, specify the follow-up of stroke care	0/1/2/3	Staff plan of outpatient clinic. SOP, describing organised stroke care after discharge from own hospital

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D) Investigations

Specialised personnel and methods

Number	Question	Points	Documents/Texts
D1	Emergency Computed tomography with all modalities of advanced imaging (angiography, perfusion) or magnetic resonance tomography with all modalities of vessel imaging are available 24/7	0/3	Staff list, working plan and location plan in hospital
D2	MRI with MR-angiopraphy is available 24/7	0/3	SOP
D3	Swallowing assessment is warranted 24/7, following a written procedure	0/3	SOP
D4	Digital subtraction angiography is available 24/7	0/3	SOP
D5	Neurosonological assessment is available within 24 hours	0/3	SOP
D6	Investigations for establishing the etiopathogenic diagnosis are available at the institution (Holter-monitoring at least for 24 hours, TTE, TEE, laboratory analysis, EEG)	0/3	Sop Diagnostics

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E) Interventions and Monitoring

Standard operating procedure for diagnosis and therapy

Number	Question	Points	Documents/Texts
E1	The stroke team establishes and follows written standard operating procedures (stroke pathways, SOP or written protocols, which are to be updated and revised regularly) for diagnosis, management of critical incidents, nursing, rehabilitation, prevention, follow-up, including help for acute stroke treatment in older children and adolescent up to 17 years old in cooperation with the paediatric institution	0/1/2/3	SOPs
E2	There are conceptual written protocols in relation to the EMS, ER, referring institutions, or stroke units. The concepts are revised regularly	0/1/2/3	SOPs
E3	There are conceptual written protocols for all needs of stroke rehabilitation	0/1/2/3	SOP
E4	The stroke team establishes and works after a defined concept for swallowing disorders	0/1/2/3	SOP
E5	IV-thrombolysis and embolectomy are available 24/7. The indication is made by the attending stroke neurologist or stroke physician. Time from EMR arrival to thrombolysis (e.g. Door to needle time, groin puncture time, complication rate) is assessed and documented	0/3	SOP Results of Door to needle time, groin puncture time and complication rate for the last year before application.
E6	Neurosurgical and neck-vessel surgical interventional procedures are feasible 24/7	0/3	SOP
E7	Revascularisation of the carotid artery with thrombendarterectomy or stenting is available (also provided for collaborating stroke units) 24/7	0/1/2/3	SOP
E8	The infrastructure of the stroke unit allows continuous automated monitoring of ECG, breathing, blood pressure, pulsoxymetry, and monitoring of glucose and temperature	0/3	SOP

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F) Teaching, Meetings, and Research

Professional interactions, Networking

Number	Question	Points	Documents/Texts
F1	Runs multidisciplinary group meetings at least once a week and documents in the chart that the case was discussed by the multiprofessional team	0/1/2/3	Schedules, organisational plan (description of teaching, meetings and research)
F2	The ESO stroke centre should serve as a platform for stroke research with stroke study coordinators operated by a stroke faculty. Staff should take part in randomized controlled trials and apply for research grants	0/1/2/3	Description of university affiliation, publications of last 5 years (all team members)
F3	Organises ongoing teaching courses and professional education for all of the stroke team and attached stroke units, EMS personnel and ER personnel is warranted and documented	0/1/2/3	Provide a teaching plan (schedule, activities) for the previous year and current year
F4	Patients and their families should be regularly updated about treatment and prognosis	0/1/2/3	Description of procedures

G) Numbers and quality indicators

Statistics

Number	Question	Points	Documents
G1	The stroke centre runs a stroke data base for quality control	0/1/2/3	Annual report or online link or screen shot
G2	Minimal overall number of dedicated beds for stroke patients	0/1/2/3	Provide your number *Minimum: 12*
G3	Minimal number of beds with automated monitoring	0/1/2/3	Provide your number *Minimum: 6*
G4	Minimal number of patients with acute stroke treated per year	0/3	Official and authorised hospital statistics by annual report or database with online link *Minimum: 400*
G5	Number of IV-thrombolysis per year, door to needle time (DTN)	0/1/2/3	Official and authorised hospital statistics by annual report or database with online link *Minimum: 50* *DTN: Median*
G6	Number of acute endovascular recanalisations for stroke per year; Door-to groin-puncture (DTG)	0/1/2/3	Official and authorised hospital statistics by annual report or database or online link *Minimum: 20* *DTG: Median*

G7	Documentation of age, sex, admission stroke severity, specification of different types of stroke, such as ischemic stroke, TIA, sinus venous thrombosis and ICH, mortality (in-hospital, or at 3 months), mRS at discharge or at 3 months	0/3	Official and authorized hospital statistics by annual report or database or online link
G8	Documentation of quality of stroke care: % documented swallowing test, early mobilisation, and prevention of DVT	0/1/2/3	Provide your numbers
G9	Access to local stroke support organisation	0/1/2/3	Description, online link
G10	Numbers of the relevant diagnostics (Number of echo-cardiograph, Numbers of neurovascular Ultrasound, Number of CTA/MRA)	0/1/2/3	Official and authorised hospital statistics by annual report or database or online link

Official and authorised: a document approved by the hospital authorities with names, official function and signatures from two different persons